

## **REMARKS**

### **Status of the Claims**

Claims 2-4 and 9-11 are pending in the present application. Claims 2 and 11 have been amended. Reconsideration and allowance of all of the pending claims are respectfully requested.

The amendments to claims 2 and 11 do not add new matter to the application as filed. Claim 2 has been amended to correct a clerical error. Support for the recitations of claim 11 can be found in the present specification, *inter alia*, at pages 2, 8 and 10. Accordingly, no new matter is added, and entry of this amendment is respectfully requested.

### **Issues under 35 U.S.C. § 102**

1) The Examiner has rejected claims 1-4 and 8-10 under 35 U.S.C. § 102(b) as being anticipated by Uphues et al. '082 (U.S. 5,442,082).

2) The Examiner has also rejected claims 1-4 and 8-10 under 35 U.S.C. § 102(e) as being anticipated by Tadokoro et al. '392 (U.S. 6,599,392).

3) The Examiner has also rejected claims 1-4 and 8-10 under 35 U.S.C. § 102(b) as being anticipated by Ikeda et al. '708 (U.S. 6,565,708).

Claim 1 has been previously cancelled, which renders the rejections as to this claim moot. With respect to the remaining claims, reconsideration and withdrawal of the rejections are respectfully requested based on the following considerations.

### **Legal Standard for Determining Anticipation**

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir.

2001) “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

### **The Present Invention**

In the process of the present invention, an alkylene oxide is added to a polyhydric alcohol, and then, carboxylic acid is reacted. The OH groups, a terminate of the AO groups, react with the carboxylic acid efficiently, and most of the OH groups are substituted with hydrophobic groups.

The limitation “OHV/(SV – AV + OHV) in the range of from 0 to 0.3” means that the OH group, a terminate of the AO group, is substituted with a hydrophobic group to a high extent.

The alkylene oxide adducts of the present invention have AO groups in the amount of 45 to 1000 moles per mole of the ester compound.

In the present invention, 45 moles or more of AO groups are important from the viewpoint of the advantages of the claimed invention.

If the alkylene oxide adducts have less than 45 moles of AO groups, the performance of the ink collection or aggregation becomes small (see Test No. 16 of the present specification).

### **Distinctions over the Cited Art**

Uphues et al. ‘082 disclose reacting a carboxylic acid derivative, such as fats and oils/oil, and an alkylene oxide in the presence of a polyhydric alcohol. In such a reaction of Uphues et al. ‘082 in the presence of a polyhydric alcohol, a certain amount of OH groups, a terminate of AO groups, remain unreacted.

Furthermore, a reaction between alkylene oxides by themselves takes place easily, increasing the value of OHV.

Thus, the alkylene oxide adducts obtained by Uphues et al. '082 fall outside the claimed limitation of " $\text{OHV}/(\text{SV} - \text{AV} + \text{OHV})$  in the range of from 0 to 0.3."

In the examples of Uphues et al. '082, the value of " $\text{OHV}/(\text{SV} - \text{AV} + \text{OHV})$ " is large. The product of Example 1 has OHV of 120 and SV of 74.4. AV is 0 because no carboxylic acid is added. The value of " $\text{OHV}/(\text{SV} - \text{AV} + \text{OHV})$ " for Example 1 is 0.62.

The value of " $\text{OHV}/(\text{SV} - \text{AV} + \text{OHV})$ " of Example 2 is  $86/(51-0+86) = 0.62$ . The value of " $\text{OHV}/(\text{SV} - \text{AV} + \text{OHV})$ " of Example 3 is  $89/(53-0+89) = 0.62$ . Thus, all three examples of Uphues et al. '082 fall outside the claimed range.

Turning to the second rejection, Tadokoro et al. '392 disclose an alkylene oxide adduct to an aliphatic acid ester as a paper quality improver. The alkylene oxide adduct of Tadokoro et al. '392 has AO groups in the amount of 0 to 12 moles per mole of the ester compound. The reference is different from the claimed invention in this regard. More specifically, the alkylene oxide adducts of the present invention have AO groups in the amount of 45 to 1000 moles per mole of the ester compound.

Turning to the third rejection, Ikeda et al. '708 disclose an alkylene oxide adduct to an aliphatic acid ester, but the alkylene oxide adducts have 0 to 12 moles of AO groups per mole of the ester compound. For this reason, Ikeda et al. '708 is different from the present invention from the viewpoint of the adducted mole number of AO groups. More specifically and as stated above, the alkylene oxide adducts of the present invention have AO groups in the amount of 45 to 1000 moles per mole of the ester compound.

Based on the above considerations, Applicants respectfully submit that the cited references fail to teach or provide for each of the limitations recited in pending claims 2-4 and 9-11. As such, the cited references are incapable of anticipating instantly pending claims 2-4 and 9-11. Any contentions to the contrary must be reconsidered at present.

For completeness, Applicants respectfully submit that the cited references, either alone or in combination, also fail to render the instant invention obvious since they completely fail to provide any teaching or suggestion to those of ordinary skill in the art that would allow them to arrive at the instant invention as claimed, including each of the limitations recited therein. Again, any contention to the contrary must be reconsidered at present.

**CONCLUSION**

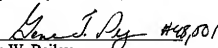
The Examiner is respectfully requested to issue a Notice of Allowance, clearly indicating that each of instantly pending claims 2-4 and 9-11 are allowed and patentable at present.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad M. Rink (Reg. No. 58,258) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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